Multimedia Appendix 3:

Table 1.
Characteristics of mobile health (mHealth) apps using cognitive behavioral therapy (CBT).

Author (year) and app	Intervention and control group	Primary outcome measure	Main findings	Within-f and between-g effect size
Kuhn et al [45] PTSD[a] coach	Intervention n=62;Control n=58	PTSD symptoms	App users showed more improvement with depressive symptoms and coping	PTSD checklist civilian version *d*=0.14[b,e] *d*=0.86[b,d] *d*=1.09[c,d]
Ly et al [46] Unnamed	Intervention n=36; Control n=37	Stress	Mobile app stress intervention based on acceptance and commitment therapy reduces perceived stress and increases general health	12-item General Health Questionnaire: *d*=0.41[b,e] *d*=0.37[b,d] 14-item Perceived Stress Scale: *d*=0.50[b,e] *d*=0.62[b,d]
Ly et al [47] Unnamed	Intervention (a) Behavioral activation n=40; Intervention (b) Mindfulness n=41	Depression	The two interventions were equally effective; however, the behavioral activation intervention had	BDI-II[f]: *d*=0.24[b,e] *d*=0.03[c,e] *d*=1.83[b,d] *d*=1.19[c,d] PHQ[g]-9: *d*=0.28[b,e]

			more significant results for the more severely depressed	*d*=0.15[c,e] *d*=1.63[b,d] *d*=1.14[c,d]
Ly et al [48] Unnamed	Intervention (a) Blended treatment (app + 4 FTF[h] therapy sessions) n=46; Intervention (b) Full behavioral activation (no app + 10 FTF therapy sessions) n=41	Depression	Inconclusive findings	BDI-II: *d*=-0.13[b,e] *d*=-0.10[c,e] Intervention (a) *d*=1.40[b,d] *d*=1.35[c,d] Intervention (b) *d*=1.47[b,d] *d*=1.44[c,d]
Birney et al [49] MoodHacker	Intervention (a) Mobile app n=150; Intervention (b) Alternate care n=150	Depression	The app produced significant effects on depressive symptoms	PHQ: *d*=0.14[b,e] Intervention (a): *d*=0.93[b,d] Intervention (b): *d*=0.92[b,d]
Whittaker et al [50] MEMO	Intervention n=426; Control n=429	Depression	Significantly assisted participants to rid their selves of negative thoughts	Increased positivity: *d*=1.19[b,e]

Horsch et al [51] The Sleepcare app	Intervention Cognitive behavioral therapy for insomnia app n=74 Wait-list Control n=77	Insomnia severity	Significant improvement in relatively mild insomnia	Insomnia severity inventory: *d*=-0.66[b,e] *d*=1.33[b,d]
Kristjánsdóttir et al [52] Unnamed	Intervention n=62; Control n=65	Chronic pain acceptance	No between group effect but there was a within group effect on the intervention. Presents slight findings suggesting improvement in chronic pain acceptance	Pain Catastrophizing Scale: *d*=0.61[b,d] *d*=1.02[c,d] *d*=0.03[b,e] *d*=0.35[c,e]

[a]PTSD: posttraumatic stress disorder.

[b]post test.

[c]follow-up.

[d]within-group effect.

[e]between-group effect.

[f]BDI-II: Beck Depression Inventory-II.

[g]PHQ: Patient Health Questionnaire.

[h]FTF: face-to-face.

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